



Online Experiments with jsPsych

Introduction to jsPsych

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jsPsych

- ▶ What is jsPsych?
 - ▶ JavaScript library for running experiments in the browser
- ▶ Useful links
 - ▶ [jsPsych Website](#)
 - ▶ [jsPsych Code](#)
 - ▶ [jsPsych Paper](#)
 - ▶ [YouTube Tutorial 1](#)
 - ▶ [YouTube Tutorial 2](#)
 - ▶ [YouTube Tutorial 3](#)



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- ▶ Running behavioural studies online: Is it valid?
- ▶ Useful references
 - ▶ Bridges, D., Pitiot, A., MacAskill, M. R., & Peirce, J. W. (2020). The timing mega-study: comparing a range of experiment generators, both lab-based and online. PeerJ, 8, e9414.
 - ▶ de Leeuw, Joshua R., and Benjamin A. Motz. "Psychophysics in a Web browser? Comparing response times collected with JavaScript and Psychophysics Toolbox in a visual search task." Behavior Research Methods 48.1 (2016): 1-12.
 - ▶ Hilbig, B. E. (2016). Reaction time effects in lab-versus Web-based research: Experimental evidence. Behavior Research Methods, 48(4), 1718-1724.



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► What do we need?

- Text Editor (Vim, Visual Studio Code, Sublime Text, R-Studio etc.)
 - Need to edit .js (95%), .html, and .cs files
 - Syntax highlighting!
- Web-Browser
 - Need to test on most commonly used browsers (e.g., Firefox, Chrome, and Safari)
- jsPsych library
- Web Server (e.g., Pavlovia)
 - Not required for local development/initial testing
- Git (required for interaction with Pavlovia + useful in general for code development)
 - Git link



Git

▶ What is Git?

▶ Git is version control software

- ▶ We can use it to keep track of changes in our experiment code (complete history of changes)
- ▶ Avoid need for myexperiment180121.js, myexperiment190121_test_change.js, myexperiment190121_other_change.js, and so on
- ▶ Makes collaboration easier (share code, use code from others)

▶ What is GitHub/GitLab

▶ Two separate online hosts for Git projects

- ▶ GitHub
- ▶ GitLab



Git Basics: Walkthrough I

- ▶ Create a new project (local computer)
 - ▶ README.md file
 - ▶ git init . directory
 - ▶ git add .
 - ▶ git status
 - ▶ git commit
- ▶ Create a repository on GitHub¹ or GitLab
 - ▶ Your account → Your repositories → New
 - ▶ Repository name → Create repository
 - ▶ ... or push an existing repository from the command line
- ▶ Upload our local repository to GitHub or GitLab
 - ▶ git remote add origin <https://github.com/igmmgi/XXX.git>
 - ▶ git branch -M main²
 - ▶ git push -u origin main

¹ Instructions refer to GitHub

² master to main name change 2020/2021



Git Basics: Walkthrough II

- ▶ Locate project to clone (on GitHub/GitLab)
 - ▶ Code → Copy/Paste
- ▶ Clone an existing project (local computer)
 - ▶ `git clone XXX`
 - ▶ `git log`
- ▶ Clone TuebingenWorkshopOnlineExperiments which contains course materials
 - ▶ `git clone https://github.com/igmmgi/TuebingenWorkshopOnlineExperiments.git`
 - ▶ `git pull`